

Andrew Dailey

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Education and Certifications

Florida Polytechnic University, Lakeland, FL Graduated May 2025
Bachelor's of Science in Computer Engineering
GPA: 3.7 / 4.0

Fundamentals of Engineering (FE) Exam - Electrical and Computer Engineering February 2026
National Council of Examiners for Engineering and Surveying

Experience

Pulmonary Associates Inc. May 2022 – Present
Administrative Assistant

- Maintaining validity of patient transaction database in EMDs and Microsoft Excel,
- Aiding in the document transfer systems of the hospitals.

L'SPACE NASA Proposal Writing and Evaluation Experience Jan. 2025 – Apr. 2025
Lead Systems Engineer

- As a team of 8, creating a proposal that may be selected by NASA to receive \$10,000 in funding.
- Leading the engineering group of the team.
- Score: 3.79 / 5.0

Projects

Four-Digit Stopwatch Nov. 2022 – Dec. 2022

- Programmed in Verilog in Quartus Prime, deployed on an FPGA, increments a time value every second, displayed on a seven segment display.
- Can be paused, reset, and restarted using built in FPGA controls.
- Repository: <https://github.com/andtyldai/Four-Digit-Stopwatch>

SCUDEM – SIMIODE Challenge Using Differential Equations Modeling Oct. 2023 – Nov. 2023

- Team competition in modelling a scenario using differential equations.
- Modelling the ability of a dog to catch food by modelling its mouth as a dampened spring-mass system
- Presentation: <https://www.youtube.com/watch?v=pLbUweGcrDo> – Score 3.85 / 5.0

Phototransistor Motion Detector Nov. 2023 – Dec. 2023

- Programmed in AVR C in Microchip Studio, deployed on an Arduino R3.
- Triggers an interrupt-service-routine when the laser shining into the phototransistor is broken, triggering an alarm.
- Repository: <https://github.com/andtyldai/Phototransistor-Motion-Detector>

COMAP MCM – Mathematical Contest in Modeling Feb. 2024

- Team competition in modelling a scenario using differential equations.
- Modelling the population growth of a species of fish in relation to seasonal changes, food availability, and current population trends.
- Report: https://drive.google.com/file/d/11LFR_RIPj9rI6vfwj6zAarPOUAe7XIPa/view?usp=sharing – Score: Successful

Serial Text Message Embedded System Apr. 2024 – May 2024

- Programmed in ARM C in Keil μ Vision, deployed on an ARM Microcontroller.
- Receives text messages from serial input, and uses built in microcontroller components to display, scroll through, and delete messages.
- Repository: <https://github.com/andtyldai/Serial-Text-Message-Embedded-System>

Server-Client File Transfer Platform Oct. 2024 – Dec. 2024

- Creates a Python socket connection between two computers to transfer files.
- Client side sends files, downloads files, deletes files from the server, creates directories, and deletes directories.
- Server side receives commands from the clients and facilitates the clients' actions.
- Repository: <https://github.com/BetaPhIII/CNT3004-Final-Project>

Capstone Project – Water Level Measurement System Oct. 2024 – May 2025

- Tasked by Mosaic (Phosphate mining company in Central Florida) to design a system to measure water level surrounding the property, ensuring no contaminated water leaks out, causing environmental harm.
- Required to transmit data wirelessly, generate its own power, and work with modules around the entire site (300-600 measurement sites total).
- Worked with a team of 5: 2 Computer Engineers, 1 Electrical Engineer, and 2 Environmental Engineers.

Skills

Programming: C, C++, Java, Python, ARM, AVR, MIPS, Verilog

Hardware Design: Arduino, Circuit Design (AC and DC), Computer Architecture, Digital Logic Design, Embedded Operating Systems, Microcontroller s

Mathematics: Calculus, Differential Equations, Linear Algebra, Probability and Statistics

Certifications: Microsoft Office Specialist Master (Word, Word Expert, Excel, Excel Expert, PowerPoint, Outlook)